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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,325	07/24/2001	Yuta Ohki	010919	1391

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EXAMINER

FORD, JOHN K

ART UNIT PAPER NUMBER

3753

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,325

Applicant(s)

Okki M

Examiner

FORD

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6-23-03
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-8 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,8 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Applicant's remarks in the June 23, 2003 amendment (Paper No. 10) have been carefully considered. Claims 7 and 8 are allowed. Claim 1 is not.

The Examiner is again asking for applicants' cooperation in returning a copy of the PTO 892 form that was sent out with paper No. 5. This is the second request.

Turning to the substance of applicant's remarks, the new limitation that the heating block and cooling block are separate members with a connecting plate, separate from blocks, located between them, is argued to be not shown or taught by any of the references. While the Examiner agrees that Tezuka does not show such construction, the Examiner nonetheless believes that both Potter and Osborne teach such construction. Counsel attacks Potter and Osborne Singly not in the context that the references were used in the 35 U.S.C. 103 rejections carefully formulated in the previous office action and repeated here. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F. 2d 413, 208 USPQ 871 (CCPA 1981); In re Merck, 800 F.2d 1091, 231 USPQ 375 (Fed.Cir. 1986).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka (4,548,259) in view of Osborne (5,023,459).

A "heating block" is formed by frame 13 and heater 18 and delay plate 19 in Tezuka. Together these components form a receptacle for flow cell 12. A connecting plate 13A is positioned between and attaches the heating block (described above) to a "cooling block" 15. The connecting plate 14 has hollow recesses in it, which are filled with low conductivity materials (as disclosed in col. 4, lines 12-14 and 40-43 of Tezuka et al). It is submitted that the term low conductivity materials in the context of the Tezuka et al disclosure inherently means that the connecting plate is made of a material(s) having a lower conductivity than the two blocks.

To have replaced the insulating region 14 of Tezuka with a layered construction as taught by Osborne at 13 (adhesive), 14 (insulation) and 15 (adhesive) to prevent the heater from putting excessive load on the cooler (Osborne, col. 6, lines 17-26) would have been obvious given that these insulating regions in Osborne perform essentially the same function as the corresponding insulating region in Tezuka et al (described above) and Osborne's construction, advantageously, appears to be a little less complicated to construct.

Contrary to applicant's assertions Osborne's block 3 is cooled by thermoelectric coolers. It is not merely a "substrate". Layers 13,14 and 15 are, collectively, insulating. Layer 12 heats block 10.

Claims 1 and 2 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Potter et al. (5,819,842) in view of Kasman (5,459,300) or Dutertre et al. (5,161,609) Figure 4 of Kishimoto or WO 91/07504 or JP 5-168459 or GB 2261111.

Potter discloses all of the claimed features except recesses in the top plate as conceded in applicant's (Paper No. 7) response, based on a failure to argue any other purported deficiency in Potter. See 37 CFR 1.111 (b), reply must: "specifically point out the supposed errors in the Examiner's action".

In Potter, a high thermal capacity metal cold block 25 is cooled by thermoelectric cooler 26. A connecting plate 24 (made of "an insulator composed of plastic loaded glass fiber, ceramic alumina or aluminum nitride, glass or plastic...") connects the heating block 22 and the cold block 25. At least some, if not all, of the enumerated materials for the connector plate 24 have a thermal conductivity lower than that of the cold block 25 and the heating block 22. The upper surface of the heating block 22 serves as a sample container holder (either directly or with the assistance of the, optional, spreader plate 21).

Potter is specifically designed with a flat upper surface heater (21 or 22) to heat a flat-bottom micro-titration plate.

As pointed out by Kasman in col. 1, line 20-col. 2, line 32, incorporated here by reference, such micro-titration plates can come with anyone of flat, (like Potter), U-shaped or V-shaped bottoms.

If one of ordinary skill in this art wanted to use Potter's system to heat/cool a U-shaped or V-shaped bottom micro-titration tray, rather than a flat-bottomed one he/she would have found it obvious to have shaped the upper surface of the heater of Potter (i.e. 21 or 22) with a U-shaped or V-shaped recess to have received the corresponding type (i.e. U-shaped or V-shaped) of titration tray. Such shaping of the upper surface of the heater is fairly taught by any one of the cited secondary references discussed below.

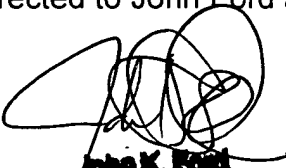
Such recessed construction of the upper tray receiving surface is fairly shown in Kasman (element 14), Dutertre et al (Figure 4), Kishimoto (Figure 7), WO/504 (Figure 1, element 12), JP'459 (Figure 1, element 3), or GB'111, element 4, described on page 5, line 31 – page 6, line 5, incorporated here by reference. In favor of using a large number of secondary references to teach the notoriety of a feature, see In re GPAC, 35 USPQ2d 1116 (Fed. Cir. 1995) and In re Gorman, 18 USPQ2d 1885 (Fed. Cir. 1991).

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Any inquiry concerning this communication should be directed to John Ford at telephone number 703-308-2636.



John K. Ford
Primary Examiner